



**NATIONAL WEATHER SERVICE
WESTERN REGION
SALT LAKE CITY, UTAH**



APRIL 9, 2003

REGIONAL DIRECTOR

Second WMO Conference on Women in Meteorology and Hydrology: On March 24, 2003, the World Meteorological Organization (WMO) sponsored the second conference on women in meteorology and hydrology. I was pleased to participate as part of the U.S. Delegation led by Jack Kelly. Other members of the delegation included: Maria Pirone, Vice-President, Product and Marketing Development, AER, Inc.; Dr. Dian Sidel, Research Meteorologist, NOAA ARL; Dr. Sepideh Yalda, Associate Professor, Millersville University of Pennsylvania; Dr. Fiona Horsfall, Meteorologist, NWS Climate Services Division; Mary Glackin, Assistant Administrator, NOAA Program Planning and Integration; and Christina del Castillo, Program Analyst, NWS International Affairs Office.

There were approximately 140 attendees from close to 100 countries at the conference. The focus of the conference was to develop ways to improve representation of women in WMO activities and in the work of national meteorologic and hydrologic services in various countries. We covered a number of topics, including the cultural and societal norms requiring women throughout the world to combine and manage family and professional responsibilities. We discussed training, education, and work environment policies and practices. I gave a presentation on networking and mentoring (available at http://www2.wr.h.noaa.gov/pubnews/briefings/Networking&Mentoring_files/frame.htm), which is applicable to all, not just women. At the conclusion of the conference, there were numerous recommendations to be reported to the WMO Congress which meets in May. Those recommendations are all-inclusive and contain suggestions for women, the national meteorological and hydrologic services, and WMO. To move forward will take a lot of work throughout the world. It was a rewarding experience, meeting so many talented, diverse women. The week in Geneva at this conference left me with a renewed appreciation for the freedom and opportunities that we, as Americans, often take for granted.

DEPUTY REGIONAL DIRECTOR

Western Region Honors Two Volunteers for Coop Program: National Weather Service Western Region is honoring two volunteers for their dedication to the Cooperative Weather Observer Program (COOP) during ceremonies this week.



Roland L. Hansen displays the NWS Stoll Award given to him on April 7.

Roland L. Hansen, of Fairfield, Utah, received a special birthday present from the National Weather Service during his 82nd birthday celebration on April 7. Surrounded by family and friends, Hansen received the NWS Stoll Award, a 50-year length of service award, commemorating his tenure as a cooperative weather observer. The award was presented by staff from NWS Western Region Headquarters and the NWS Forecast Office Salt Lake City. He was honored for his dedication for recording weather conditions for this area of central Utah, and NWS estimates he has taken more than 18,350 observations during his tenure. Weather records began in Fairfield on September 28, 1950, by Hansen's father-in-law, Henry

Armstrong. Hansen served as the stand-by observer from 1950 until he took control of the station on November 24, 1952. In 1987, Hansen received another national cooperative observer recognition, the John Campanius Holm Award.

Harold Del Ponte of Klamath, California, will receive the Benjamin Franklin Award on April 12 from officials representing the National Weather Service in Eureka. He will be recognized for his 55 years of service to the agency as a COOP program participant. The award will be presented to Del Ponte at a family gathering in Crescent City. Mr. Del Ponte's award is one of three Benjamin Franklin honors granted regionally in 2003 by the National Weather Service. He and his family have given dependable, accurate and timely weather observations that have defined the climate around northwest California since February 1947, and NWS estimates he has taken nearly 20,000 observations during his tenure. Del Ponte has received several other NWS cooperative observer honors for length of service including the John Campanius Holm Award in 1970, the Thomas Jefferson Award in 1980, and the Stoll Award in 1997.



(PIH) and have their questions answered by NWS weather forecasting experts. The class, composed of 20 students from twelve different countries, each wrote a letter with several questions attached pertaining to weather.

The international grade school students in Singapore pose for a photo.

Weather Outreach to Students in

Singapore: In March 2003, an international grade school in Singapore (Overseas Family School) adopted the theme of weather for a month. As one of their assignments, students were encouraged to write letters to the National Weather Service in Pocatello

The weather unit encompassed a variety of cross-curricular activities involving temperature, measurement, experiments, and comparing weather conditions around the world. The children particularly enjoyed learning more about weather extremes and how to cope with them. Their questions ranged from “Why do tornadoes form?” to “What causes rainbows?” and “What is the difference between typhoons and hurricanes?” The questions were answered individually and e-mailed back to the teacher, Debbie Winther, who is the sister of WFO Pocatello Lead Forecaster Rick Winther.

WFO Pocatello received the following feedback:

“Thanks for taking the time out of your busy schedule to email letters to the kids. They really enjoyed listening to and reading the answers from you. I attached each letter on to their original 'postcard' for them to keep.”

Earthquake Exercise: NWS staff from the Portland and Medford Weather Forecast Offices, as well as the Alaska Tsunami Warning Center, participated in the April 2-3 statewide earthquake exercise, QuakeEx, sponsored by the Oregon Department of Emergency Management. The first day's exercise scenario simulated a large earthquake occurring along the Oregon coastal perimeter that spawned a tsunami. The ATWC issued a series of test tsunami warning bulletins to the forecast offices that enabled NWS staff to respond to each bulletin and practice their internal procedures and intragency processes for working with other emergency agencies and officials, as well as simulating notification to the public via NOAA Weather Radio. All test messages were handled through fax or use of NOAA Weather Radio test transmitters to preclude any unnecessary concern by the public that an actual earthquake and tsunami had occurred. The exercise scenario for the second day was a land-based earthquake.

More than 300 officials from multiple federal, state, county, city government agencies, as well as schools and businesses, participated in the exercise.

PC Magazine selected the NOAA home page as one of this year's "100 Top Undiscovered Web sites," citing it as one of the sites "you won't be able to imagine life before them." The NOAA home page is the online front door to the Commerce Department's National Oceanic and Atmospheric Administration.

In its March 25 issue, PC Magazine says the NOAA home page is, "chock a block with articles and resources on the weather and our oceans." The NOAA home page is the only federal government Web site listed in PC Magazine's Top 100 Undiscovered Web sites of 2003.

Government and the Internet:

Nielsen/NetRatings reports that more than one-third of all Internet users visited a government site in February. In total, traffic to federal government websites jumped 26 percent to nearly 44.9 million surfers from December 2002 to February 2003. For many of these surfers, the Internet is the first place they turn when they need information about a government service or health care.

According to a new survey compiled by the Pew Internet and American Life Project Also, up to 84 percent of all Americans now expect the

Internet's World Wide Web to provide them needed information on government, news, healthcare, and commerce.

In Pew's report, Counting on the Internet, both Internet users and non-users expressed high expectations of online information sources, with 75 percent of Internet users stating that the Internet succeeded in meeting their information needs. Many users referred to the Internet as their first or primary source of information.

For finding U.S. government information, 58 percent of Internet users said they would utilize online sources, compared to only 28 percent who said they would use the telephone.

METEOROLOGICAL SERVICES DIVISION

Statement of the Week: This edition of the statement of the week is a winter storm watch from WFO Billings forecaster Al Richmond. Recognizing the potential of this storm system, the forecast team issued the watch well in advance and ended up with a 42 hour lead time on the watch. One of the benefits of the early watch was an early warning...an ensuing winter storm warning had over 27 hours of lead time for the mountain zones. The watch statement was concise, including the relevant information without going overboard. Great work, Al!

URGENT - WINTER WEATHER MESSAGE
NATIONAL WEATHER SERVICE BILLINGS MT
133 PM MST TUE MAR 25 2003

MTZ034-038-040-041-056-WYZ098-099-260500-
NORTHEAST BIG HORN MOUNTAINS-PARK-SHERIDAN FOOTHILLS-
SOUTHERN BIG HORN-STILLWATER-SWEET GRASS-WESTERN CARBON-
INCLUDING THE CITIES OF...BIG TIMBER...COLUMBUS...LIVINGSTON...
RED LODGE AND SHERIDAN
133 PM MST TUE MAR 25 2003

...WINTER STORM WATCH FOR LATE WEDNESDAY EVENING THROUGH
THURSDAY MORNING...

AN AREA OF LOW PRESSURE WILL DEVELOP OVER CENTRAL WYOMING
WEDNESDAY. THIS AREA OF LOW PRESSURE ALONG WITH A MOIST WEST
FLOW ALOFT...WILL BRING AREAS OF SNOW TO THE MOUNTAINS OF SOUTH
CENTRAL MONTANA AND NORTH CENTRAL WYOMING LATE WEDNESDAY
EVENING INTO THURSDAY MORNING. SNOW ACCUMULATIONS OF 6 TO 10
INCHES WILL BE POSSIBLE IN THE MOUNTAINS. ACCUMULATIONS OF UP TO 6
INCHES WILL BE POSSIBLE ADJACENT TO THE MOUNTAINS...ESPECIALLY
NORTH FACING SLOPES.

A WINTER STORM WATCH IS ISSUED WHEN SEVERE WINTER WEATHER IS

POSSIBLE...BUT NOT IMMINENT. AT THE TIME...THERE IS A POTENTIAL FOR SIGNIFICANT SNOW AND OR ICE ACCUMULATIONS. FUTURE DRIVING AND WALKING CONDITIONS MAY BECOME HAZARDOUS...SO IT IS IMPORTANT TO MONITOR THE LATEST FORECASTS.

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RICHMOND

Aviation: Fog Calculator: Todd Lericos from the Spokane WFO has created an Excel Fog Calculator based on the UPS Fog Forecasting technique. This Excel calculator along with a Low Level Wind Shear calculator (also created by Todd Lericos) has been forwarded to your office's aviation focalpoints. The Spokane WFO has had lots of success with the Fog and LLWS calculators, and we hope you will too.

The UPS Fog Forecasting technique was developed by the United Parcel Service (UPS) as a way to determine the onset of significant fog events, which they categorized as a 200 foot ceiling and a 1/2 mile visibility because this would impact their operations. There are specific criteria identified in the paper as critical to fog development such as cross over temperature and the turbulent mixing of the lower boundary layer. Both of these criteria can be calculated easily using Todd Lericos's Excel program. The UPS paper is online at: <http://ams.confex.com/ams/pdfview.cgi?username=39165>

HYDROLOGY AND CLIMATE SERVICES DIVISION

Climate Service Program

National Core Suite of Climate Products for Webpages: The first Regional Climate Services Program Manager's meeting was hosted by OCWWS Climate Services Division, April 1-2, 2003, at NWSH. A topic at the meeting was the consideration of the Western Region prototype webpage containing the core suite of climate products. All of the other regions agreed on the concept of having a national core suite of climate products on local office webpages. A national team has been established, and they will use the Western Region prototype as a starting point for development of the national core suite of climate products.

SCIENTIFIC SERVICES DIVISION

Western Region IFPS Verification and Analysis Package: Recently two components to Western Region's effort to support IFPS verification have been delivered to Western Region Forecast offices.

First, an analysis system developed by Tim Barker (SOO, Boise) and Les Colin (Lead Forecaster, Boise) that was initially presented at the Western Region IFPS workshop in January has been made available for download on the IFPS smartTool Repository (<http://isl715.nws.noaa.gov/STR/index.php3>). However, it hasn't been advertised beyond its mere availability on the server. The MatchObsAll analysis system, written by Tim Barker, consists of a series of GFESuite procedures and smartTools that run on an office's local GFE development computer. This system uses both a model background field and previous analysis, as well as METAR, mesoWest and marine observations, to

produce an analysis on the same grid being produced by local IFPS/GFE. Observation correction is done using the SERP algorithm (based on the SERP smartTool), producing two analyses at each hour - one based on the model background field and one based on the previous hours analysis. These two analyses are averaged together, producing the final analysis, which limits the affect of observational data used in the observation correction. In addition, the system is set to rerun several previous hours of analysis at each time step to take advantage of new data and minimize data latency. Because this analysis system is run at the local office on the same grid (i.e. same domain and resolution), it can easily be used for both support of IFPS operations as well as gridded verification of the Official gridded forecast.

Second, as an action from the Western Region IFPS workshop in January, SSD has completed the redesign of the IFPS verification system that was put together and sent out to WR offices last Fall. The redesigned system is based on work done by Jeff Davis (WFO Tucson) that utilizes separate mutable databases in the GFESuite to archive forecast and observed and error grids based on the Fcst database. Because this system represents a complete redesign, the procedures and smartTools that were made available last Fall have now become obsolete. In addition to changing the underlying database structure of the system, the system will now compute error grids for MaxT, MinT, QPF and Winds and can easily be configured to add more weather elements. Importantly, this system has also been configured to take advantage of the above MatchObsAll analysis system developed by Tim Barker. The installation of the system has been simplified greatly in order to compartmentalize the configuration and to minimize the amount of hands on work needed. While there some manual configuration is required (site id, host id, etc...), most of the setup is automated using an install script.

In response to the decision to make this system mandatory at the IFPS workshop, all Western Region forecast offices will have the system installed and running by May 1, 2003.

Seventh Annual Great Divide Workshop: NOAA's National Weather Service Office in Glasgow, Montana, extends an invitation to participate in the Seventh Annual Great Divide Workshop. This year's workshop will be held August 26-28, 2003, in Glasgow, Montana. The workshop will begin at 1 p.m. on August 26 and conclude at about 11 a.m. on August 28, allowing for travel Tuesday morning, August 26, and Thursday afternoon, August 28.

The Great Divide Workshop provides a forum for participants to share information and to discuss ideas involving new tools and techniques for providing weather forecasts for the Inter-mountain West and Western High Plains, across the U.S. and Canada. We will have a distinguished group of invited speakers as well as an evening banquet.

This year's workshop will be held at the Cottonwood Inn (telephone 1-800-321-8213). Cottonwood Inn offers a shuttle service to and from the airport and is located a short distance to a few restaurants. A block of rooms has been secured for the workshop. Please mention the National Weather Service when making your room reservation.

Registration information will be available before April 1. All participants will asked to provide a presentation topic before June 1, 2003. Abstracts will be taken through August 1, 2003, and can be e-mailed to Thomas.Salem@noaa.gov or mailed to:

National Weather Service
Weather Forecast Office
101 Airport Road
Glasgow, MT 59230
Re: Great Divide Workshop

If you want more information or have questions please feel free to contact the National Weather Service Office at (406) 228-4042.

SYSTEMS OPERATIONS DIVISION

Facilities Projects: The UPS at Medford, which had been down from the previous week was repaired by Lee Jenson. The unit was found to have gone to bypass due to an undervoltage problem. Plans are in process to replace this unit with one of the new Mitsubishi UPSs in early June.

Jim Maclellan and Dean Prowker completed the replacement of a wind tower at Bodega Bay, California. The new Glen Martin tilt-down tower was used to eliminate the need for climbing at this site.

Tom Page completed the installation of a fuel transfer pump cutoff float and switch at the Las Vegas radar site. This installation will eliminate the possibility of the outside fuel storage tank from transferring all its fuel to the two tanks interior to the generator building should either of the interior tanks spring a leak. Tom designed and built the float/switch.

AWIPS Status: Twenty-two Western Region sites have installed their AWIPS PXs. Six sites remain. Seven sites have installed Operational Build 1 (OB1).